THE RECOVERY KERNEL

[illegible]

[illegible]?

[illegible].

[illegible] · [illegible] · [illegible]/[illegible]/[illegible] · [illegible] [illegible].

⚠ [illegible] - [illegible] | [illegible]: **112** [illegible] **14416 or 1800-89-14416** [illegible].

[illegible]

[illegible].

[illegible] Recovery Kernel [illegible]:

[illegible]. [illegible], [illegible] "[illegible]" [illegible] 15% [illegible].

[illegible] Recovery Kernel [illegible].

[illegible]—[illegible]—[illegible]

[illegible]. [illegible] [illegible] [illegible] [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible]

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	[illegible], [illegible].	
[illegible]	[illegible]. [illegible], [illegible].	[illegible]. 5-HTP, 5-MTHF [illegible]. [illegible], [illegible].
[illegible].	[illegible] ([illegible]-[illegible]) [illegible], [illegible], [illegible], [illegible] OPRM1 A118G [illegible].	[illegible], [illegible], [illegible], [illegible], [illegible]. OPRM1 [illegible].

[illegible] - [illegible].

[illegible] - [illegible].

[illegible]: [illegible] ([illegible] ADH1B [illegible]), [illegible] ([illegible] ALDH2 [illegible]). [illegible] - [illegible] DNA, [illegible], [illegible], [illegible].

[illegible].

[illegible].	[illegible].	[illegible].
ADH1B [illegible] (rs1229984)	[illegible] - [illegible] ALDH2 [illegible].	[illegible] ADH1B [illegible] ALDH2 [illegible], [illegible]. [illegible] ADH1B [illegible] ALDH2 [illegible], [illegible]. [illegible].
ALDH2*2 [illegible] (rs671) - [illegible]	[illegible]. [illegible] (*1/*2): [illegible]	[illegible] ALDH2*2 [illegible] - [illegible]

[illegible].	50% [illegible], [illegible] [illegible] [illegible]. [illegible] (*2/*2): [illegible] [illegible] [illegible], [illegible] [illegible].	[illegible] [illegible] [illegible] [illegible] [illegible]. [illegible] [illegible] AUD ([illegible] [illegible] [illegible]) [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible]; [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] AUD [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].
ALDH2*1/*1 ([illegible] [illegible]).	[illegible] [illegible] [illegible] [illegible] - [illegible] [illegible] [illegible] [illegible].

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] - [illegible] [illegible].

[illegible] [illegible] - [illegible] [illegible] [illegible] [illegible].

[illegible] [illegible] [illegible] [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]: [illegible] [illegible] [illegible].

- [illegible]: [illegible] [illegible] → [illegible] [illegible] → [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

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[illegible] - [illegible].

[illegible] - [illegible] 50-60%. [illegible]. [illegible], [illegible]. Recovery Kernel[illegible], [illegible].

[illegible].

[illegible].	[illegible].	[illegible].	[illegible].
GABRA2	GABA-A [illegible]-2 [illegible] - [illegible].	rs279858 / rs279845 [illegible].	[illegible] Recovery Kernel [illegible]. [illegible] GABAergic [illegible] - [illegible] "[illegible]" [illegible]. [illegible], [illegible], [illegible]. [illegible] GABA [illegible] - [illegible], GABA [illegible], [illegible].
OPRM1	[illegible]-[illegible] - [illegible].	A118G (rs1799971)	A118G [illegible], [illegible] - [illegible] A/A [illegible]. [illegible] Naloxone[illegible]. [illegible] A118G [illegible], [illegible] Naloxone [illegible]. [illegible].
COMT	[illegible].	Val158Met (rs4680)	[illegible] COMT [illegible] (Met/Met, Sage [illegible]) [illegible] - [illegible], [illegible]

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SLC6A4 / 5-HTTLPR	[illegible] [illegible] [illegible].	[illegible]/[illegible] [illegible].	[illegible]/[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] (AUD) [illegible] [illegible] [illegible] [illegible] - [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. 5-HTP, 5-MTHF [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. SSRIs ([illegible] [illegible] [illegible]) [illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible].
CYP2E1	[illegible] [illegible]450 2[illegible]1 - [illegible] [illegible] [illegible] [illegible]; [illegible] [illegible] [illegible] [illegible] [illegible].	[illegible] [illegible] [illegible] (rs2031920, rs3813867).	[illegible] CYP2E1 [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] - [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. N-[illegible] [illegible] (NAC) [illegible] [illegible] [illegible] [illegible], [illegible]-[illegible] [illegible]) [illegible] [illegible] [illegible] [illegible] [illegible].
CYP2C19 / CYP2D6	[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].	[illegible] [illegible] [illegible] [illegible] [illegible] [illegible].	[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]: [illegible] (CYP3A4), [illegible] (CYP [illegible] [illegible] [illegible] [illegible] - [illegible] [illegible]), [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]-[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]; [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

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3.3 - [illegible]

⚠ **PAWS** [illegible]

[illegible] (GABA) [illegible] (glutamate) [illegible]

PAWS [illegible]

PAWS (Post-Acute Withdrawal Syndrome) [illegible]

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☐☐☐☐☐☐☐☐/ ☐☐☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐.	☐☐☐☐☐☐. ☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐. ☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐ ☐☐☐☐ ☐☐☐☐☐ ☐☐. ☐☐☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐ ☐☐☐☐ ☐☐, ☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐ ☐☐ ☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐ ☐☐, ☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐.	☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐ (☐☐ ☐☐☐☐☐ ☐☐☐☐ ☐☐, ☐☐☐☐ ☐☐☐☐☐☐☐☐, ☐☐☐☐ ☐☐☐☐☐☐☐☐), ☐☐☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐☐☐. ☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐ ☐☐☐☐☐. ☐☐☐☐☐ ☐☐ ☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐ ☐☐. ☐☐☐☐☐☐. ☐☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐ ☐☐ ☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐ ☐☐☐☐: ☐☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐, ☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐, ☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐.

5 ☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐ - ☐☐☐☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐.

1. ☐☐☐ ☐☐☐☐☐, ☐☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐ ☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐. ☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐.
2. 4-7-8 ☐☐☐☐☐☐ ☐☐☐☐. ☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐. ☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐. ☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐, ☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐.
3. ☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐. ☐☐☐☐☐☐☐☐☐☐☐☐ + ☐☐-☐☐☐☐☐☐☐, ☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐. ☐☐-☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐☐☐, ☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐ (☐☐ ☐☐ ☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐ ☐ ☐☐☐☐). ☐☐☐☐☐☐☐ ☐☐☐☐ ☐☐ 1-2 ☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐ - ☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐ ☐☐.
4. ☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐. ☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐ ☐☐ ☐☐ ☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐☐ ☐☐. ☐☐☐☐☐☐ ☐☐☐☐☐, ☐☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐☐, ☐☐☐☐☐ ☐☐☐☐.
5. ☐☐☐☐☐☐☐ ☐☐☐☐. ☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐. ☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐, ☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐. ☐☐☐☐☐☐ ☐ ☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐ ☐☐.
6. ☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐. ☐☐☐☐☐☐ ☐ ☐☐☐☐ ☐☐☐☐☐☐☐☐ ☐☐☐☐☐, ☐☐ ☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐ ☐☐☐☐ ☐☐ ☐☐☐☐☐ ☐☐☐☐. ☐☐☐☐ ☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐ ☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐☐, ☐☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐☐ ☐☐ - ☐ ☐☐ ☐☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐.

7. [illegible], [illegible], [illegible] (α-[illegible]), [illegible], [illegible]. [illegible] [illegible] [illegible] [illegible].

4.6 - [illegible] [illegible].

[illegible] [illegible] (GABA) [illegible], [illegible] [illegible] [illegible]

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Crisis: call or text 988 | Emergency: 911 | SAMHSA: 1-800-662-4357

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